FY2001 Awards for the Defense Experimental Program to Stimulate Competitive Research (DEPSCoR)					
PRINCIPAL INVESTIGATOR	INSTITUTION	DEPARTMENT	STATE	PROPOSAL TITLE	SPONSOR
Eric Butcher	University of Alaska - Fairbanks	Department of Mechanical Engineering	AK	Order Reduction of Large-scale Systems via Nonlinear Normal Modes	Air Force
Bert B. Boyer	University of Alaska - Fairbanks	Institute for Artic Biology	AK	Molecular Mechanisms of Metabolic Suppression: Protein Synthesis and Mitochondrial Respiration in a Hibernating Ground Squirrel Model	Navy
Kelly L. Drew	University of Alaska - Fairbanks	Institute for Artic Biology	AK	Central Nervous System Regulation of Metabolic Down Regulation During Hibernation: A Microdialysis Study using Capillary Electrophoresis with Laser Induced Fluorescence Detection	Navy
Robert L. Zimmerman	Alabama A&M University	Department of Physics	AL	Directed Beam Processing of Micro Electrical Mechanical System Structures	Army
Rami R. Bommareddi	Alabama A&M University	Department of Physics	AL	Preparation and Characterization of High-Temperature Hold Burning Materials	Air Force
Ravindra B. Lal	Alabama A&M University	Department of Physics	AL	Growth and Study of Gallium Phosphide for Multi-Spectral Infra-red Windows and Radomes	BMDO
Hareesh V. Tippur	Auburn University	Department of Mechanical Engineering	AL	Influence of Compositional Gradients on the Dynamic Failure of functionally Graded Materials	Army
John R. Williams	Auburn University	Department of Physics	AL	Interface Science for Oxide Layers on Silicon Carbide	Navy
Malcolm J. Crocker	Auburn University	Department of Mechanical Engineering	AL	Development of Composite Materials with High Passive Damping Properties	Navy
Juan Carlos Balda	University of Arkansas	Department of Electrical Engineering	AR	Direct Cooling of Propulsion Drives for High Power Density and Low Volume	Navy
Laurent Bellaiche	University of Arkansas	Department of Physics	AR	Finite-Temperature Properties of Ferroelectric Alloys from First Principles	Navy
Donald L. Crawford	University of Idaho	Department of Microbiology, Molecular Biology, and Biochemistry	ID	Discovery of Novel Antifungal Compounds Produces as a Result of Plant-Microbe Interactions, and Their Use for the Prevention of Biodeterioration	Army
Chien M. Wai	University of Idaho	Department of Chemistry	ID	Synthesis of Nanoparticles in Carbon Dioxide Microemulsions and Potential Applications	Army
David N. McIlroy	University of Idaho	Department of Physics	ID	Two-dimensional Photonic Crystals for Near Infra-red and Visible Optoelectronics Applications	Air Force
Kevin B. Lease	Kansas State University	Department of Mechanical & Nuclear Engineering	KS	Characterization and Evaluation of the Critical Crack Tip Opening Angle Fracture Criterion for Structural Metallic Materials	Army
Hyuck M. Kwon	Wichita State University	Department of Electrical & Computer Engineering	KS	Smart Antenna for Future US Army Frequency-Hopping Communications Systems	Army
Scott A. Yost	University of Kentucky	Department of Civil Engineering	KY	Integrating High Performance Computing Tools with and Improved Finite Element Hydrodynamic Model for Operational Modeling of Tidal Estuaries	Navy
Robert W. Cohn	University of Louisville	ElectroOptics Research Institute and Nanotechnology Center	KY	Nanofabrication and Rapid Prototyping of High Aspect Ratio Photonic Components	Army
Aly A. Farag	University of Louisville	Department of Electrical and Computer Engineering	KY	Multimodality Image Fusion for 3-D Model Building with Applications	Air Force

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Jacek M. Zurada	University of Louisville	Department of Electrical and Computer Engineering	KY	Modeling of Spatial and Temporal Dynamics in Biological Olfactory Systems	Navy
Elise H. Turner	University of Maine	Department of Computer Science	ME	Communication During Collaborative Problem Solving in Autonomous Oceanographic Sampling Networks	Navy
Rayford B. Vaughn	Mississippi State University	Department of Computer Science	MS	Integration of Fuzzy Data Mining with High Performance Computing: Intrusion Detection, Fault Detection, Performance Monitoring	BMDO
Lawrence S. Ukeiley	University of Mississippi	National Center for Physical Acoustics	MS	Shear Layer Dynamics in Resonating Cavity Flows	Air Force
Kenneth A. Mauritz	University of Southern Mississippi	Department of Polymer Science	MS	Mechanical Behavior of Finely Structured Styrene-Based Block Copolymer/(Inorganic Oxide or Organically-Modified Inorganic Oxide) Nanocomposite Materials	Army
Timothy K. Minton	Montana State University	Department of Chemistry and Biochemistry	MT	Reaction Dynamics Relevant to Spacecraft in Low Earth Orbit	Air Force
Rufus L. Cone	Montana State University	Department of Physics	MT	Mode-Locked Lasers and Optical Clocks Stabilized By Spectral Hole Burning	Air Force
Aleksander Rebane	Montana State University	Department of Physics	MT	Ultrafast Multi-Photon Processes in Specialized Organic Dendrimers for Opto-Electronic Applications	Air Force
Mark J. Young	Montana State University	Department of Plant Sciences and Plant Pathology	MT	Viral-Based Architectures for Nanomaterials Synthesis	Navy
Kendall E. Nygard	North Dakota State University	Department of Computer Science and Operations Research	ND	Cooperative Control of Multiple Unmanned Autonomous Vehicles	Air Force
Brajendra N. Panda	University of North Dakota	Department of Computer Science	ND	Defending Against Novel Information Attacks: Prototype Development and Analysis	Air Force
You Qiang	University of Nebraska	Center for Materials Research and Analysis/ Physics and Astronomy	NE	Control and Dynamics of Interacting Spins in Nanoscale Metamaterials	Army
Ralph Skomski	University of Nebraska	Center for Materials Research and Analysis	NE	Advanced Nanostructured Magnetic Materials	Air Force
Peter A. Dowben	University of Nebraska	Department of Physics and Astronomy	NE	Spin-Polarization at Ferromagnetic-Insulator Interfaces	Navy
Hesham E. El-Rewini	University of Nebraska at Omaha	Department of Computer Science	NE	On the Design and Operation of Mobile Computing and Communication Systems with Hybrid Backbones	Army
Robert D. Palmer	University of Nebraska-Lincoln	Department of Electrical Engineering	NE	Atmospheric Boundary Layer Structure and Dynamics Revealed Through Adaptive Imaging Techniques	Army
Ram M. Narayanan	University of Nebraska-Lincoln	Department of Electrical Engineering	NE	Random Noise Monopulse Radar Technique for Covert Tracking of Missiles in Flight	BMDO
Diandra L. Leslie-Pelecky	University of Nebraska-Lincoln	Department of Physics and Astronomy	NE	Cluster-Assembled Soft Magnets for Power Electronics Applications	Navy
Marcin J. Szumowski	Desert Research Institute, Univ and Community College System of Nevada	Division of Atmospheric Sciences	NV	Boundary Layer Marine Stratus: Diurnal Variability in Microphysics	Navy
Qiang Ji	University of Nevada, Reno	Department of Computer Science	NV	Information Fusion with Dynamic Probabilistic Bayesian Networks	Army

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James M. Henson	University of Nevada, Reno	Department of Electrical Engineering	NV	Understanding Clutter and Texture in Parametric Radar Imagery of Terrestrial Targets	Army
George Bebis	University of Nevada, Reno	Department of Computer Science	NV	Automatic Target Recognition Using Algebraic Junctions of Views	Navy
Andrzej M. Trzynadlowski	University of Nevada, Reno	Department of` Electrical Engineering	NV	Noise Mitigation in Electric AC Drive Systems by Random Pulse Width Modulation	Navy
Jay S. Hanas	University of Oklahoma Health Sciences	Department of Biochemistry & Molecular Biology	OK	Alterations in Gene Expression Mechanisms Induced by Toxic Chemicals	Air Force
John C. DiCesare	University of Tulsa	Department of Chemistry and Biochemistry	OK	Development of Molecularly Imprinted Polymer Sensors for Chemical Warfare Agents Utilizing Combinatorial Chemistry Techniques	Army
Dale C. Teeters	University of Tulsa	Department of Chemistry and Biochemistry	OK	Development and Characterization of Nanobattery Systems	Navy
Maharaj S. Tomar	University of Puerto Rico	Department of Physics	PR	Heteroepitaxial Growth and Doping of ZnO Films for Optoelectronic Applications	Air Force
John T. Bendler	South Dakota School of Mines and Technology	Department of Chemistry and Chemical Engineering	SD	Modeling, Synthesis and Testing of New High-Performance Polycarbonates for Transparent Armor Applications	Army
Christopher H. M. Jenkins	South Dakota School of Mines and Technology	Department of Mechanical Engineering	SD	Investigation of Adhesive Joints for Nano-Engineering and Modeling	Air Force
Charles J. Colbourn	University of Vermont	Department of Computer Science	VT	Performance and Reliability of Large-Scale Disk Arrays	Army
Kurt E. Oughstun	University of Vermont	Department of Electrical and Computer Engineering	VT	A Research Program on the Asymptotic Description of Pulsed Electromagnetic Beam Propagation in Dispersive, Attenuative Media	Air Force
Michael L. Norton	Marshall University	Department of Chemistry	WV	DNA Nanostructures for Surface Patterning	Army
Charles C. Somerville	Marshall University	Department of Biological Sciences	WV	Biodegradation of Chlorinated Ethenes in Mixed Waste Streams	Army
Thomas E. Wilson	Marshall University	Department of Physics and Physical Science	WV	Resonant Acoustic Phonon Generation in Doping Superlattices by Pulsed FIR Laser	Army
Marcello R. Napolitano	West Virginia University	Department of Mechanical and Aerospace Engineering	WV	Development of Formation Flight Control Algorithms Using 3 YF-22 Flying Scale Models	Air Force
David Lederman	West Virginia University	Department of Physics	WV	An Integrated Methodology for Three-Dimensional Visualization of Subsurface Microcracks	Air Force
Thomas H. Myers	West Virginia University	Department of Physics	WV	Alternative Approaches to P-Type Doping in GaN and Related Alloys	Navy
Ismail B. Celik	West Virginia University	Department of Mechanical and Aerospace Engineering	WV	Parallel Computations of Two-Phase Turbulent Flows	Navy
Kenneth Showalter	West Virginia University	Department of Chemistry	WV	Control and Synchronization of Dynamical Systems: Studies of Chemical Model Systems	Navy
Jon M. Pikal	University of Wyoming	Department of Electrical Engineering	WY	Carrier Lifetime and Recombination in 1.3 um Quantum Dot Lasers	Army
Pradeep K. Agarwal	University of Wyoming	Department of Chemical and Petroleum Engineering	WY	Investigations of a Pulsed Corona Reactor System Towards Remediation of Diesel Engine Exhaust	Army

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Jeffrey L. Yarger	University of Wyoming	Department of Chemistry	WY	Using Brillouin Spectroscopy to Characterize the Physical and Mechanical Behavior of Amorphous Materials	Army
Douglas R. Smith	University of Wyoming	Department of Mechanical Engineering	WY	Study of the Formation and Scaling of a Synthetic Jet	Air Force
Gabor Vali	University of Wyoming	Department of Atmospheric Science / Engineering	WY	Aircraft and Radar Measurements of Marine Stratus	Navy